

REMARKS

Claims 22-39 are pending in the application and stand rejected.

Rejection under 35 U.S.C §102

Claims 22-39 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0217055 to Lee et al. Applicant respectfully disagrees that this is a proper 102 reference and in support of this assertion submits herewith an Affidavit pursuant to 37 C.F.R. §132 averring that any invention disclosed but not claimed in the Lee reference was derived from the Applicant and is thus not an invention “by another” as required under 35 U.S.C. 102(e).

Rejection under 35 U.S.C §103

Claims 22-39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0097367 to Ma et al. in view of U.S. Pat. No. 5,884,305 to Kleinberg et al. In particular, the Examiner finds that Ma discloses all claimed limitations of claims 22 and 31 with the exception of calculating a second weighted min_supp value for both the prior and current partitions by increasing the first weighted min_supp value. The Examiner further finds that Kleinberg discloses calculating a second weighted min_supp value for both the prior and current partitions at col.7, line 14-51, and opines that it would have been obvious to the skilled person to combine the teachings of Ma and Kleinberg “so as to provide a system and method for quickly mining large databases, which is easy to use and is cost-effective.” Applicant respectfully disagrees.

Claims 22 and 31 recite:

22. A method of mining association itemsets, the method comprising using a computer to perform the steps of:

providing a first itemset containing two first items, and having a first weighted frequency exceeding or equaling to a first weighted min_supp value, the first weighted frequency and the first weighted min_supp value been calculated for a

prior partition comprising a plurality of prior transactions;

calculating a second weighted frequency of the first itemset for both the prior partition and a current partition by increasing the first weighted frequency, the current partition comprising all of a plurality of current transactions established later than all the prior transactions of the prior partition;

calculating a second weighted min_supp value for both the prior and current partitions *by increasing the first weighted min_supp value*; and

storing the first itemset in a result for a subsequent partition later than the current partition when determining that the second weighted frequency exceeds the second weighted min_supp value.

(Emphasis Added)

31. A system of mining association itemsets, comprising:

a database providing a first itemset containing two first items, and having a first weighted frequency exceeding or equaling to a first weighted min_supp value, the first weighted frequency and the first weighted min_supp value been calculated for a prior partition comprising a plurality of prior transaction records; and

an association analysis unit **calculating a second weighted frequency of the first itemset for both the prior partition and a current partition by increasing the first weighted frequency, calculating a second weighted min_supp value for both the prior and current partitions *by increasing the first weighted min_supp value***, and storing the first itemset in a result for a subsequent partition later than the current partition when determining that the second weighted frequency exceeds the second weighted min_supp value,

wherein the current partition comprising all of a plurality of current transaction records is established later than all the prior transactions of the prior partition, the first weighted frequency and the first weighted min_supp value are calculated for a prior partition.

(Emphasis Added)

Applicant submits that the cited references, even if combined in the manner alleged by the Examiner, fail to anticipate at least the limitations emphasized above. The Examiner asserts that Kleinberg discloses calculating a second weighted min_supp value for both the prior and current partitions in col.7, line 14-51. Reviewing this passage carefully, however, reveals that Kleinberg merely teaches calculating values for the prior and current partitions, but not calculating values for the prior and current partitions by increasing the first weighted min_supp value as claimed herein. Should the Examiner insist otherwise, Applicant respectfully request that she clearly and specifically point out where Kleinberg discloses this feature in accordance with 37 C.F.R. 1.104(c)2.

The Examiner further alleges that the claimed first weighted frequency is anticipated by the predefined threshold values in Ma (¶[0070]), and the first weighted min_supp value is anticipated by the qualification function of Ma (FIG.4 and ¶ [0070]). However, neither Ma nor the other prior art on the record teach or suggest the actually claimed limitation of “calculating a second weighted frequency of the first itemset for both the prior partition and a current partition by increasing the first weighted frequency” as recited in the claims 22 and 39. Once again, should the Examiner disagree, Applicant respectfully invites her to cite to the specific disclosure of Ma or Kleinberg that supports her interpretation, as per 37 C.F.R. 1.104(c)2.

Applicant further notes that the Examiner has also failed to meet the other two prongs of a proper 103 rejection, namely motivation and reasonable expectation of success. The motivation that the Examiner sets forth, “so as to provide a system and method for quickly mining large databases, which is easy to use and is cost-effective,” finds no support anywhere on the face of either Ma or Kleinberg, and there is in fact nothing in either reference that would motivate the skilled person looking to implement the system of either reference to consult the other reference in order “to provide a system and method for quickly mining large databases, which is easy to use and is cost-effective.” Again, should the Examiner persist that such motivation is to be found in the references, Applicant respectfully invites her to cite to the exact portion of the specific reference. Applicant further invites the Examiner to set forth exactly where in the references a teaching is to be found as to how exactly one would combine the teachings of Ma and Kleinberg so as to have a reasonable expectation of success - Applicant respectfully notes that there is complete silence in the Action regarding this specific requirement for a 103 rejection.

In view of the above, Applicant respectfully submits that claims 22 and 31 are in fact novel and non-obvious over the art on record and requests the Examiner to kindly reconsider and withdraw this rejection.

Claims 23-30 depend from claim 22, and claims 32-39 depend from claim 31. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, in light of the above discussion of claims 22 and 31, Applicant submits that claims 23-30 and 32-39 are also allowable. For the sake of a complete record, Applicant further respectfully notes that the specific equations claimed in claims 23-28 and 32-37 are nowhere to be found in either reference, and the Examiner offers no real discussion of how these claims are anticipated beyond a general citations of certain paragraphs in the references which Applicant does not find to disclose anything akin to the claimed equations. Furthermore, with respect to claims 29, 30, 38 and 39, although Ma may disclose an item set $\{1, 2\}$, neither reference anticipates or obviates the exact calculation of the third weighted frequency and the third weighted min_supp value nor the detection of the second itemset and the third weighted frequency as per the claims. For all of the above reasons, Applicant submits that claims 23-30 and 32-39 are thus also novel and non-obvious over the art on record.

Regarding the prior art made of record by the Examiner but not relied upon, Applicant believes that this art does not render the pending claims unpatentable.

In view of the above, Applicant submits that the application is now in condition for allowance and respectfully urges the Examiner to pass this case to issue.

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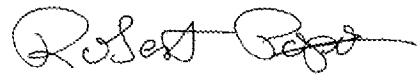
The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this document is being transmitted to the
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Respectfully submitted,



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